

SIGNAL CONSTELLATIONS SUITABLE FOR NON-LINEAR AMPLIFICATION

ABSTRACT

A communications system (10) which utilizes an M-ary QAM signal constellation suitable for non-linear applications. The communications system includes a modulator (18) for utilizing the M-ary constellation to implement the modulation. The M-ary constellation is a circular constellation which provides a simplified amplitude predistortion by utilizing the subject M-ary constellations, enabling more efficient communications can then be achieved through a peak-power-limited non-linear channel (16). Such non-linear channels (16) are more power efficient at creating RF energy from DC energy.

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